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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,501	12/03/2003	Alfred Johann Peter Haszler	APV31528A	3969

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Washington, DC 20036

EXAMINER
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MORILLO, JANEL COMBS

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/725,501	Applicant(s) HASZLER ET AL.	
	Examiner Janelle Combs-Morillo	Art Unit 1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-30 is/are pending in the application.
- 4a) Of the above claim(s) 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-28 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/959,602.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/19/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 799900 A1 (EP'900) in view of WO 95/26420 or Baumann et al (US 5,624,632).

EP'900 teaches an Al-Mg-Mn-Zn alloy suitable for welded components (page 2 line 6) with alloying ranges as set forth in the Table below (see abstract, etc.). EP'900 teaches overlapping ranges of Mg, Mn, Zn, Zr, Cr, Ti, Fe, Si, and Cu, with respect to instant independent claims 1 and 30. EP'900 does not teach the addition of Sc.

However, WO'420 teaches that the addition of Sc to Al-Mg alloys enables stronger welds and assemblies (abstract). WO'420 teaches 0.15-0.60% Sc added to said Al-Mg alloy (WO'420 page 20 lines 6 and 9). It would have been obvious to one of ordinary skill in the art to add 0.15-0.60% Sc (as taught by WO'420) to the Al-Mg-Zn-Mn alloy composition taught by EP'900 because WO'420 teaches that said addition provides for stronger welds and assemblies (abstract).

	Mg	Mn	Zn	Zr	Cr	Ti	Fe	Si	Cu	Sc
indep. Claim 1	4.0-6.0	0.4-1.2	0.4-1.5	0.25 max.	0.3 max.	0.2 max.	0.5 max.	0.5 max.	0.4 max.	0.01-0.5
2	4.0-5.6									
3	4.6-5.6									
4			0.4-0.9							
5			0.5-0.9							
6				0.05-0.25						
7				0.05-0.20						

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8				0.10-0.20						
9										0.01-0.3
10										0.1-0.5
11										0.1-0.3
12		0.4-0.6								
13		0.6-0.9								
14							0.15-0.35			
15							0.2-0.3			
16								0.07-0.25		
17								0.10-0.20		
18					0.15% max					
19									0.1% max.	
30	4.0-5.6	0.4-1.2	0.4-1.5	0.25 max.	0.3 max.	0.2 max.	0.5 max.	0.5 max.	0.4 max.	0.01-0.5
EP'900 broad	4.5-7	0.4-1.2	0.4-5.0	0.3 max.	0.3 max.	0.2 max.	0.5 max.	0.5 max.	0.4 max. Cu	
Hoffman	3.0-6.5	0.2-1.0	<1.3	<0.30	<0.15	<0.30	<0.8	0.05-0.6	<0.30	

Alternatively, Baumann teaches that the addition of 0.05-0.5% Sc can be added to Al-Mg alloys in order to improve strength and corrosion resistance (column 2 lines 46-47, 61-62). It would have been obvious to one of ordinary skill in the art to add 0.05-0.5% Sc to the Al-Mg-Zn-Mn alloy taught by EP'900 because Baumann teaches that said additions improve strength and corrosion resistance (column 2 lines 61-62).

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning dependent composition claims 2-19, the combination of EP'900 and WO'240 or Bauman teaches an alloy composition that overlaps the instant ranges (see above discussion and Table).

Concerning claims 20-21, EP'900 teaches that said alloy can be formed into a rolled product such as a plate (page 2 line 40). EP'900 teaches a work hardened temper or soft temper can be applied to said Al-Mg alloy (page 3 lines 47-48).

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Concerning claims 23-26, the prior art does not teach the proof strength or exfoliation resistance of an Al-Mg-Zn-Mn alloy with the instant alloying ranges. However, where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Because the prior art teaches substantially the same composition processed substantially as presently claimed, then substantially the same results (proof strength or exfoliation resistance) are expected to occur.

Concerning claims 22, 27, and 28, EP'900 teaches that said plate can used in the construction of large welded structures such as vessels for marine and land transportation (page 2 lines 5-10).

### ***Response to Amendment/Arguments***

3. In the response filed on November 12, 2004 applicant amended claim 1, cancelled claim 2, and submitted various arguments traversing the rejections of record. Applicant's argument that the present invention is allowable over the prior art of record because neither WO'420 nor Baumann teach the addition of Sc along with Zn has not been found persuasive. The main reference of EP'900 is used to teach the presently claimed ranges of Mg, Mn, Zn, Zr, Cr, Ti, Fe, Si, and Cu. The secondary references of WO'420 and Baumann teach that Sc is a beneficial additive to 5xxx series Al-Mg alloys.

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4. Applicant's argument that the present invention is allowable over the prior art of record because there is no teaching in the prior art of the influence of Sc on the exfoliation corrosion resistance (arguments p 6) has not been found persuasive. Applicant has not shown specific unexpected results.

5. The ODP rejections in view of US Pat 6695935, 6416884, and 6342113 have been overcome. However, the instant claims are rejected under ODP in view of the claims of 6337147, 6773664, 10/776605, and 10/299814, as stated below.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 3-28, and 30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,337,147 B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of US'147 are drawn to an overlapping aluminum alloy composition comprising: 5.0-6.0% Mg, 0.6-1.2% Mn, 0.4-1.5% Zn, 0.05-0.25% Zr, 0.3% max. Sc, 0.5% max. Si, 0.5% Fe max (see US'664 at cl. 4), which overlaps or touches the boundary of the presently

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claimed alloying ranges. Claims 1, 4, etc. of US'147 teaches said alloy welded into a welded structure, substantially as presently claimed.

8. Claims 1, 4-28, and 30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,773,664 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of US'664 are drawn to an overlapping aluminum alloy composition comprising: 3.0-4.5% Mg, 0.4-1.4% Mn, 0.4-0.9% M=Zn, 0.05-0.25% Zr, 0.3% max. Sc, 0.10-1.4% Si (see US'664 at cl. 12), 1.0% Fe max, which overlaps or touches the boundary of the presently claimed alloying ranges. Said cast product taught by the claims of US'664 is held to be suitable for welding into a welded structure, substantially as presently claimed.

***Provisional ODP***

9. Claims 1, 3-28, and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/776605 (Pub US 2004/0161359 A1). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of US'605 teach an overlapping Al-Mg alloy comprising: 2.7-6.0% Mg, 0.4-1.4% Mn, 0.1-1.5% Zn, 0.05-0.25% Zr, 0.3% max. Sc, 1.4% max. Si, 1.0% max. Fe (see US'605 at cl. 1, 7), which overlaps or touches the boundary of the presently claimed alloying ranges. Said cast product taught by the claims of US'605 is held to be suitable for welding into a welded structure, substantially as presently claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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10. Claims 1, 3-28, and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/299814 (Pub US 2003/014912 A1). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of US'814 teach an overlapping Al-Mg alloy welded structure (see US'814 at cl. 9-11) said alloy comprising: 3.0-4.5% Mg, 0.4-1.4% Mn, 0.4-0.9% Zn, 0.05-0.25% Zr, 0.3% max. Sc, 0.05% max. Si, 0.5% max. Fe, (see US'814 at cl. 1), which overlaps or touches the boundary of the presently claimed alloying ranges.


This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.


### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jcm   
January 12, 2005

  
GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER